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REPORT OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

Letter dated 26 September 1986 from the Deputy Head of the Delegation of the Union of Soviet Socialist Republics to the forty-first session addressed to the Secretary-General

I have the honour to enclose the text of the programme for the establishment of an international régime for the safe development of nuclear power (proposal of the USSR).

I should be grateful if you would have the text of the programme circulated as an official document of the General Assembly under agenda item 14.

(Signed) V. PETROVSKY
Deputy Head of the Delegation of
the USSR to the forty-first session
of the General Assembly

ANNEX

Programme for the establishment of an international régime for the safe development of nuclear power

(Proposal of the USSR)

Utilization of the energy of the atom is a reality of the modern age. Atomic energy entered the life of mankind, however, not as a creative force, but as the instrument of death for hundreds of thousands of people. Between the start-up of Enrico Fermi's first device and the entry into operation of the first nuclear power plant, the Igor Kurchatov plant, fell the sinister shadow of the tragedy at Hiroshima and Nagasaki.

Today, nuclear arsenals have attained dimensions which threaten life itself on earth with annihilation. The time has come to recognize that the preservation of human civilization is the affair of all States, for a nuclear war will inevitably affect each and every one of them. Before it is too late, an end must be put to the suicidal accumulation of nuclear weapons, the course which leads towards catastrophic confrontation must be abandoned, and a real process of disarmament must be begun.

The programme put forward by the Soviet Union for the elimination of nuclear weapons and other types of weapons of mass destruction throughout the world was motivated by recognition of the reality of the threat hanging over mankind. The close of the twentieth century must be marked by the complete elimination of nuclear weapons in conditions of peace and genuine, equal security for all States and peoples. Security for the earth's peoples is unthinkable without the cessation of material preparations for nuclear war.

The Soviet Union is convinced that the cessation of nuclear-weapon tests can become a turning point in efforts directed towards this objective. Precisely for this reason, the USSR proclaimed and has more than once extended a unilateral moratorium on all nuclear explosions.

However, the peaceful atom, too, brings with it considerable dangers, as is shown by the consequences of accidents at nuclear sites. Accordingly, the Soviet Union has proposed to all countries that they should work together to eliminate the possibility of accidents at nuclear facilities and to ensure the safe development of nuclear power.

Both these objectives - ensuring the safety of the peaceful use of atomic energy and freeing our planet from the nuclear threat - call for broad international co-operation and the united efforts of all States, primarily the nuclear States, international organizations and social forces which are concerned to establish a comprehensive and reliable system of international security. This is the affair of all States together, as well as of each one individually.

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At present, about 370 power reactors are in operation throughout the world. It is estimated that by the year 2000 nuclear power will account for more than 20 per cent of the total electricity generated in the world. In some countries the proportion of the electricity generated at nuclear power plants is even now more than 50 per cent. More than 30 years of experience in the operation of nuclear power plants have convincingly shown that they are viable, economic and ecologically clean.

In recent years, the geography of nuclear power has considerably expanded. Nuclear power plants and research reactors are being built and operated in developing countries of Asia, Latin America and Africa.

The time has also come to speed up the harnessing of controlled thermonuclear fusion, which in future could become an inexhaustible source of energy. Since 1978, on the initiative of the Soviet Union and with the participation of scientists from a number of Western European countries as well as the United States and Japan, the INTOR international experimental thermonuclear reactor project has been under way in Vienna. Further development of international co-operation in the field of thermonuclear fusion is in the interest of the vast majority of the world's countries, which under contemporary circumstances are vitally interested in new sources of energy. And what is particularly significant is that this field has no military application. It is also important that thermonuclear power will have less impact on the environment than other sources of energy.

Even today, the construction of such a reactor may be said to be technically feasible, and in the relatively near future.

The peaceful atom will make it possible to satisfy mankind's ever-growing energy requirements for industry, agriculture and scientific research.

There is at present no equally valuable alternative in the field of energy resources. At the same time, it is perfectly apparent that with the harnessing of nuclear energy mankind is faced with the danger that menacing forces will get out of control.

More than 150 accidents at nuclear power plants involving a release of radioactivity have already been recorded world-wide. Some of these accidents - in the United States, the Federal Republic of Germany, the United Kingdom and finally, in our country at Chernobyl - were very serious, had grave consequences and caused economic and psychological damage. Such events can also affect neighbouring States. They show how small the world we live in is, and how great the interdependence of States. The realities of the nuclear and space age mean that the peoples must realize that they are a single family on planet Earth.

For the Soviet Union, the conclusion to be drawn from the accident at the Chernobyl nuclear power plant was clear, namely, that nuclear power must be developed under conditions which ensure to the fullest extent possible the safety of people and the environment. The accident showed that extensive international co-operation and joint efforts to ensure nuclear safety in the full meaning of the word are essential.

The Soviet Union, convinced of the need for immediate practical steps to ensure the safe development of nuclear power, is proposing to the international community of States a programme of action to establish an international régime for the safe development of nuclear power on the basis of close co-operation among all States. This programme presupposes the establishment of the material and scientific basis for the safe development of nuclear power supplemented by international legal norms and agreements.

First. An early notification system for nuclear accidents and malfunctions at nuclear power plants accompanied by a radioactive release with the risk of its transboundary transport must be established as soon as possible. The purpose of this system is to minimize the consequences of such accidents for other countries while at the same time ensuring the adoption of measures to protect the health and safety of the population, physical property, and the environment.

The draft international convention on early notification of a nuclear accident prepared at an International Atomic Energy Agency meeting may constitute the basis for such a system. The Soviet Union is prepared to become a party to this convention. It will comply strictly with all its provisions, including those concerning notification of all cases of nuclear accidents, including accidents with nuclear weapons and during nuclear testing and calls upon all other countries to do likewise.

An important element of this system, and a supplement to the convention, might be the establishment of an international data bank on background radiation levels at agreed individual geographical points. These data could be used to assess the consequences of possible transboundary transport when nuclear accidents occur. Data may be collected by national centres, and information transferred to one or more international centres. The World Meteorological Organization could play an important role in this.

Since the level of protective measures is determined by the concentration of radioactive substances in the environment, general international criteria need to be agreed upon for accidental concentrations of radionuclides and for levels of ambient radioactive contamination. These agreed international criteria and standards could be used both for the adequate application of protective measures by all countries and for the substantiation of claims brought for damage caused by the transboundary release of radioactivity.

Second. Since many States are not able to cope with major accidents using their own resources, it is proposed that well organized machinery for the provision of assistance in dangerous situations and accidents should be established as a component of the international régime for the safe development of nuclear power.

The draft Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, drawn up at a special IAEA meeting of governmental experts, can become an important element of such a system.

Part of the procedure for assisting States in eliminating the consequences of accidents would be the working out of international recommendations on systematic principles for eliminating the consequences of nuclear accidents and for planning to prevent any such accident.

Third. The international system for the safe development of nuclear energy could include the agreement that, in their nuclear activities, all countries would adhere to the IAEA recommendations regarding measures for ensuring the safety of nuclear power plants.

Such recommendations could, in particular, include such questions as site selection, planning, construction, operation and shut-down of the facility, and radioactive waste management.

A first step in this direction could be an agreement among countries which export nuclear installations and nuclear fuel to make such exports conform to the IAEA recommendations on nuclear safety for nuclear power plants.

To provide practical assistance, IAEA could, on request, send highly qualified groups of nuclear safety experts to States parties to the agreement at specified intervals.

Fourth. An essential element in the system of measures for preventing accidents is the collection, processing and exchange of information regarding accidents at nuclear power plants, and the causes, course and the consequences of such accidents.

The IAEA technical meeting on improving the safety of nuclear power, which was held at the end of August 1986, was of great importance for the strengthening of international co-operation in this field. The objective and detailed information concerning the causes, course and consequences of the accident at the Chernobyl nuclear power plant, submitted by the Soviet Union, as well as the exchange of information concerning accidents which occurred in other countries, as well as experience in eliminating the consequences of such accidents, make it possible to determine the principal trends in international co-operation for providing technical guarantees for the safe development of nuclear power.

The IAEA information system on incidents at nuclear power plants affords a good basis for creating a data bank on nuclear accidents, which could be consulted by all countries involved with nuclear energy. Such a system should be further developed and expanded.

Fifth. An important element in the concentrated efforts of countries to guarantee the safety of nuclear facilities could be the joint elaboration of a project or projects for new-generation reactor systems of both the thermal and fast breeder types. In such projects, account could be taken of the latest achievements of countries in providing safe solutions to a number of technical questions, including such questions as reducing the sensitivity of reactor systems to personnel errors (that is, consideration of the "human factor"), reducing the likelihood of a core melt-down, and monitoring hydrogen.

With regard to organization, such a project or projects for safe reactors or power centres could be carried out within IAEA on analogy with the international thermonuclear reactor project. The existing working groups at IAEA could contribute to such activities.

Sixth. As is well known, the deliberate destruction of nuclear power plants, research reactors and other similar facilities can result in the release of radioactive materials and the radioactive contamination of the locality.

All this points to the fact that the consequences of the destruction of peaceful nuclear installations, even using conventional weapons, would be virtually equivalent to a nuclear attack, that is, to the kind of actions which the United Nations has already qualified as the gravest crime against humanity.

The Soviet Union proposes the development of a reliable system of measures to prevent attacks on nuclear installations. The drafting of an international convention on that subject, in accordance with which all States would pledge not to attack nuclear-power installations, must be completed.

A similar system of reliable measures must be worked out in respect of nuclear terrorism as well. The incidents of deliberate damage to installations of the nuclear industry that have occurred, and the cases of theft of highly enriched fissile materials, cannot fail to arouse concern. In view of the danger of radiation and the high level of toxicity characteristic of nuclear materials, there is an urgent need to ensure that they are reliably protected. The possibility of materials diverted in this way to make rudimentary nuclear explosive devices being used for the commission of diversionary and terrorist acts, blackmail and extortion cannot be excluded. It has become necessary to work out a reliable system of measures to prevent nuclear terrorism of any kind. We are prepared either to reach separate and independent agreement on this subject, or to solve this question within the framework of the overall efforts to fight international terrorism.

Seventh. Steps must be taken with a view to the early entry into force of the Convention on the Physical Protection of Nuclear Material. The Soviet Union has signed and ratified this Convention. We call upon other States too to follow our example as soon as possible so that the Convention may come into operation as one of the factors in ensuring nuclear safety.

Eighth. An important question in work on the international regulation of various aspects of the safety of nuclear power is the question of liability for nuclear damage. Attempts at international legal regulation in this sphere have already been made. So far, however, the question of material and moral/political damage in cases of accidents at nuclear facilities has not been sufficiently analysed, with the result that attempts are sometimes made to use nuclear accidents for the purpose of exacerbating tension and mistrust in relations among States.

In cases of nuclear accidents, States must provide free medical care, housing and other material support services to the affected population. A possible multilateral international legal instrument could provide for the liability of States both for damage at the international level resulting from the transboundary

consequences of nuclear accidents and for material and moral/political damage caused as a result of unjustified actions carried out under the pretext of protection against the consequences of nuclear accidents (dissemination of misleading information, introduction of unjustified protective measures and so on).

Ninth. A reliable régime for the safe development of nuclear power requires efforts not only by States but also by international organizations and institutes which can act as co-ordinating centres for ensuring nuclear safety. Here a leading role should be played by IAEA. The role and possibilities of this unique international organization must be enhanced, the sphere of its activities must be expanded, and fuller use must be made of the experience it has acquired in analysing various aspects of the problem of nuclear safety.

A substantial contribution to establishing a régime for the safe development of nuclear power may also be made by specialized bodies of the United Nations such as the World Health Organization, the United Nations Environment Programme, UNESCO, and others. We also believe that the United Nations Scientific Committee on the Effects of Atomic Radiation should play a more active role in ensuring the effectiveness of a régime for the safe development of nuclear power.

With the active participation of international organizations, co-ordinated joint research should be carried out and experience should be exchanged on various questions of ensuring the development of nuclear power, such as:

Working out methods for preventing and eliminating the consequences of accidents;

Analysis of the events leading up to accidents and the evolution of emergencies, including probability analysis; development of robot technologies, machinery and equipment for use in eliminating the consequences of nuclear accidents;

Establishing effective means of decontamination, machinery and mechanisms for carrying it out and reliable means of protecting people from radiation;

Developing medicaments, means and methods for curing radiation sickness;

Formulating methods for the training of personnel engaged in servicing nuclear power plants.

* * *

Today mankind is faced with a historic choice: whether to allow a slide along the course of the arms race to the abyss of nuclear self-annihilation or to bring its thinking and actions into line with the realities of the nuclear and space age.

The continuation of the arms race, and above all of the nuclear-arms race, constitutes an immediate threat to the existence of mankind. On the basis of its philosophy of bringing about a safe world, the Soviet Union advocates a broad constructive programme of measures aimed at ending the arms race and achieving disarmament.

A régime for the safe development of nuclear power would be a significant contribution to the cause of ensuring world security. Such a régime, which corresponds to the interests of all mankind, can and should be created through the combined efforts of all States.

The Soviet Union calls upon all interested countries and international organizations to co-operate in this important endeavour, which must be realized for the sake of the further development of human civilization.
